GENERIC QUALITY ASSURANCE PROJECT PLAN (QAPP)

FOR

PCB SAMPLING AT FACILITIES

Date: February 2009
Revision: 5.0

APPROVAL OF QAPP:

_____ **Date:**_____

Ed Kowalski, Director
Office of Compliance and Enforcement

_____ **Date:**_____

Ginna Grepo-Grove, Region 10 QA Manager
Office of Environmental Assessment

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ATTACHMENTS

Attachment 1. Sample Alteration Form

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Attachment 3. PCB Site-Specific Inspection Plan

1.0 Project Management Elements

1.1 Distribution List

Copies of the completed/signed project plan should be distributed to:

Compliance Officer (CO)	Specify name & correct Mail Stop
EPA Inspector/Field Project Officer	Specify name & correct Mail Stop
RSCC	Bethany Plewe, OEA-095
	Jennifer Crawford, OEA-095
RQAM	Ginna Grepo-Grove, OEA-095
Laboratory Supervisory Chemist	Gerald Dodo, LAB

Electronic copies of data are not required unless specifically requested.

1.2 Project/ Task Organization

The following is a list of key project personnel and their responsibilities:

Inspector/Field Project Officer (FPO)	_____
Program Compliance Officer (CO):	_____
RQAM :	Ginna Grepo-Grove (206) 553-1632
RSCC:	Bethany Plewe (206) 553-1603
	Jennifer Crawford (206) 553-6261
Laboratory:	Gerald Dodo (360) 871-8728

The FPO is responsible for planning sampling design, conducting the inspection, collecting physical and documentary samples, analysis coordination, and preparing the inspection report. The FPO works with the CO and members of the Region 10 Office of Regional Counsel to resolve non-compliant conditions at a Facility.

The RQAM or designee assists the FPO and CO in the development of the Site Specific QA Project Plans (QAPPs). The QA Office also reviews and approves site specific sampling plans, its subsequent revisions and amendments.

The Regional Sample Control Coordinator (RSCC) resides in the QA Office, coordinates sample analyses performed by Manchester Environmental Laboratory (MEL). The FPO submits the PCB Site Specific Inspection Plan (PSSIP) to the RSCC and the QAO. The QAO reviews the PSSIP. The RSCC informs the laboratory of the upcoming samples from the inspection and reserves laboratory space for the PSSIP submitted. The RSCC also provides samplers/inspectors with regional sample tracking numbers, custody seals and chain of custody forms.

The Laboratory (MEL) is responsible for conducting fixed laboratory analyses identified in Table 1 of the PSSIP in accordance with the requirements specified in the QAPP and the analytical methods. The supervisory chemist is the technical lead at the laboratory responsible for assigning the appropriate personnel to the project. The laboratory is also responsible for validating laboratory generated data prior to submission to FPO.

1.3 Problem Definition/ Background

1.3.1 Background

This QAPP is prepared with an intent to provide inspectors from EPA Region 10 with basic guidelines for the collection of samples, proper sample documentation and the use of correct sampling and analytical methodologies. Samples collected will be sent to MEL in Port Orchard, WA or to any State accredited laboratory for analysis. This document was prepared in compliance with the EPA Order 5360.1A2, the Agency required R5 document format, AEPA Requirements for Quality Assurance Project Plans@, EPA QA/R-5: March, 2001, and the AGuidance for Quality Assurance Project Plans@, EPA QA/G-5: December, 2002.

1.3.2 Objectives/Scope

- To determine TSCA PCB compliance through inspection and collecting samples of opportunity from the facility (whose name, address and phone number are specified in the PSSIP submitted by FPO - if known).

Specific parameters are listed in Table 1 and the sample collection/design rationale section.

1.4 Project/ Task Description and Schedule

1.4.1 Project/Task Description

This Generic QA Project Plan is developed for the purpose of supporting sampling activities that may be performed in conjunction with TSCA facility inspections. The samples will be analyzed at MEL. PCB Field analysis may be performed by the inspectors using immunoassay or Chlor-N-Oil Kits periodically. If analysis at MEL is not possible, analysis will be contracted to accredited commercial laboratories. Polychlorinated Biphenyls (PCBs) will be analyzed in accordance with the analytical methodology specified in Table 1 - Data Quality Objectives Summary of the PSSIP. See the sample collection section and specific analyses that will be performed.

1.4.2 Schedule of Tasks

Activity	Estimated Start Date	Estimated Completion Date	Comments
PCB Site-Specific QAPP Review/Approval		1-2 working days from receipt of 3-page Site-Specific Inspection Plan*	
Mobilize to Site	See PSSIP		
Sample Collection			
Laboratory Receipt of Samples			
Laboratory Analysis		5 weeks from sample receipt	
Data Validation		2 weeks from data receipt	
Target Completion Date	See PSSIP		

1.4.3 PCB Site-Specific Inspection Plan (PSSIP)

The PCB Site-Specific Inspection Plan (PSSIP) is a two- page summary of the sampling activities that will be conducted during facility inspection. The PSSIP is submitted to the QA Office for (1) review and approval and (2) for laboratory coordination and scheduling. The first page of PSSIP specifies the project code, sample identification numbers, the facility name, address, contact person and phone number, the names of inspectors conducting the inspection and their respective environmental organization affiliations, the tentative activity schedule, the distribution list of electronic and hard copy of analytical reports and the QA reviewer=s concurrence with the submitted PSSIP. Page two of the PSSIP consists of a Table summarizing the analytical requirements of the inspection, the estimated number of samples that will be collected, the suite of parameters required for analysis, the analytical procedure and methodologies that will be used and the DQO requirements of the inspection which are filled in by the FPO. If applicable, Attachment I- Sample Alteration Form and Attachment II- Corrective Action Form, may also be included with the PSSIP. The PSSIP is submitted to the QA Office for review and approval before a scheduled sampling event or immediately after collecting samples of opportunity. A blank 2-page PSSIP is attached at the end of this Generic QAPP.

1.5 Quality Objectives and Criteria for Measurement Data

Data Quality Objectives (DQOs) are the quantitative and qualitative terms inspectors and project managers use to describe how good the data needs to be in order to meet the project's objectives. The overall QA objective for analytical data is to ensure that data of known, needed and acceptable quality are provided. This will ensure that analytical data are reliable, scientifically sound, and defensible. To achieve this goal, data must be reviewed for 1) precision, 2) representativeness, 3) comparability, 4) accuracy (or bias) and 5) completeness.

Precision: Field precision is measured by collecting field duplicate samples at a frequency of specified in RSSIP for each matrix collected and measured, and for each inspection event. With the exception of Laboratory precision and accuracy can be measured by the laboratory measuring Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples and the analysis of laboratory duplicate samples. The laboratory usually performs the analysis of one set of MS/MSD and duplicate field samples per matrix measured or at a frequency specified in the PSSIP. Field and analytical precision will be evaluated by the relative percent difference (RPD) between field duplicate samples, laboratory duplicate samples; laboratory accuracy and precision will be determined by the spike recoveries and the RPDs of the MS/MSD samples, respectively.

$$RPD = \frac{ABS (R1 - R2)}{((R1 + R2)/2)} \times 100$$

R1 = Recovery for MS or duplicate 1
R2 = Recovery for MSD or duplicate

Air Samples: Before each sampling episode, two PUF plugs from each batch of approximately twenty will be spiked with a known amount of compounds of interest standard. The spiked plugs

will remain in a sealed container and will not be used during the sampling period. The spiked plugs are extracted and analyzed with the other samples as MS/MSD. The MS/MSD RPDs check the precision of analysis and determine matrix spike recoveries that indicate sample degradation checks accuracy.

Accuracy: Accuracy will be evaluated by the use percent recovery (%R) of the target analyte in spiked samples and surrogates in all samples and QC samples.

$$\% \text{ Recovery} = \frac{SQ - NQ}{S} \times 100$$

SQ = quantity of spike or surrogate found in sample
NQ = quantity found in native (unspiked) sample
S = quantity of spike or surrogate added to native sample

Representativeness is the degree to which data from the project accurately represent a particular characteristic of the environmental matrix which is being tested. Representativeness of samples is ensured by adherence to standard field sampling protocols and standard laboratory protocols. The design of the sampling scheme and number of samples should provide a representativeness of each matrix or product of the chemical processes being sampled.

Comparability is the measurement of the confidence in comparing the results of one experiment with the results of different experiments using the same matrix, sample location, sampling techniques and analytical methodologies.

Completeness: Completeness is the percentage of valid results obtained compared to the total number of samples taken for a parameter. Since sampling from inspections are usually grab and limited in number, the number of valid results obtained from the analyses are expected to be equal or better than 95%. Percent completeness may be calculated using the following formula:

$$\% \text{ Completeness} = \frac{\text{\# of valid results}}{\text{\# of samples taken}}$$

The QA objectives specified, above, will be evaluated in conjunction with the data validation process.

1.6 Special Training Requirements/ Certification

All lead TSCA PCB inspectors are required to complete the Basic Inspector Training, the 24-hour health and safety training and a combination of PCB program-specific on-the job training to satisfy the requirements of Order 3500.1. The basic health and safety training certification should be maintained current by attending an 8-hour safety training refresher course offered by USEPA each year. All other non-lead TSCA PCB inspectors are required to have at least the 24-hour Basic Health and Safety Training and the Basic Inspector Training. All EPA TSCA PCB inspectors must be enrolled in a medical monitoring prior to conducting inspections. All inspectors must also have a signed and current Acredential@ certifying the bearer as

AAuthorized to Conduct Investigations and Inspections Pursuant to All Federal Laws Administered by the United States Environmental Protection Agency. Furthermore, sampling and sample documentation skills are also assured by the mentoring provided by the senior inspectors in the field.

Scientists performing the analytical work for this project have extensive knowledge, skill and demonstrated experience in the execution of the analytical methods being requested.

1.7 Documentation and Records

Investigators will maintain field notes in a bound notebook and all documents, records, and data collected will be kept in a case file and submitted to the program office with the final inspection report.

The following documents will be archived at the Manchester Environmental Laboratory: (1) signed hard copies of sampling and chain-of-custody records (2) electronic and hard copy of analytical data including extraction and sample preparation bench sheets, raw data and reduced analytical data.

The laboratory will store all sample receipt, sample login, extraction documentation, and laboratory instrument documentation per SOP.

2.0 Measurement/Data Acquisition

2.1 Sampling Process Design (Experimental Design)

Prior to inspections, the FPO/CO will review and evaluate facility files, if available, which include but not limited to: background information, ownership, treatment, storage or disposal of solid and hazardous wastes, facility maps depicting general geographic location, property lines, surrounding land uses, all production and groundwater monitoring wells, any injection well onsite or nearby, a summary of all possible source areas of contamination, a summary of past permits requested and/or received, any enforcement actions and their subsequent responses and a list of documents and studies prepared for the facility, records and inspection reports from previous inspections.

The inspectors will collect samples of opportunity on an Aas needed@ basis to determine PCB compliance with the TSCA program.

2.2 Sampling Methods Requirements

The FPO and CO shall adhere to the technical guidance and requirements of the one or more of the following documents for sample collection during RCRA inspections:

- USEPA. 1998. SW 846, Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods .

- USEPA. Region 4, May, 1996. Environmental Investigations Standard Operating Procedures and Quality Assurance Manual

- USEPA. August, 1987. Compendium of Field Operations Methods. EPA/549/P-87/001A

- USEPA. November, 1991. Description and Sampling of Contaminated Soils - a Field Pocket Guide. EPA/625/12-91/002.

- USEPA, January 1999. Compendium of Methods for Toxic Organic Air Pollutants, Method TO-10A , ADetermination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using Low Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection.

- Annual Book of ASTM Standards, AStandard Practice for Sampling and Analysis of Pesticides and Polychlorinated Biphenyls in Air@, Method 4861-94, ASTM, Philapdelphia, PA.

- USEPA, May, 1992. Compendium of ERT Air Sampling Procedures, Polyurethane Foam (PUF) Air Sampling SOP#2069. EPA/Publication 9360.4-05

All sample containers will be supplied by the EPA Manchester Environmental Laboratory (MEL). EPA will provide certification that the containers are of pre-cleaned quality. Ambient air sampling media (PUFs) shall be pre-cleaned according to the method requirements and Aclean certifications will also be provided by the laboratory.

Individual sample containers will be stored in a cooler and shipped with ice as the coolant. All samples will be collected and shipped with proper sample custody documentation. A temperature blank shall accompany each cooler.

Soil samples and/or product samples will be collected on an as needed basis for PCB compliance determination. Details of the PCB analyses, methods, quantitation limits, containers, preservation, volumes, and holding times are specified in Table 1 - Data Quality Objectives Summary attached at the end of this QAPP. All alterations or deviations from this QAPP will be documented using Attachment 1 - Sample Alteration Form. Corrective actions will be documented using Attachment 2- Corrective Action Form.

2.3 Sample Handling and Custody Requirements

2.3.1 Sampling Procedures

See Section 2.2 of this QAPP - Sampling Method Requirements.

2.3.2 Sample Custody Procedures:

Samples will be kept in the custody of EPA and/or State personnel. Region 10 Chain of Custody procedures and forms will be used. Custody seals will be placed on all shipping containers.

2.3.3 Shipping Requirements:

Packaging, marking, labeling, and shipping of samples will comply with all regulations promulgated by the U. S. Department of Transportation (DOT) in the Code of Federal Regulations, 49 CFR 171 -177 and International Air Transport Association (IATA) regulations. Only staff who are authorized and have received the necessary training for shipping samples can ship samples by air.

2.3.4 Decontamination Procedures:

Samples will be collected using dedicated and disposable sampling tools. Inspection derived wastes (IDW) shall be collected in a capped bucket with Aappropriate PCB ML Sticker@. The IDW buckets shall be obtained from MEL through Tony Morris. The IDW bucket Acurrently in use@ shall be stored properly by the inspectors. Once the bucket is full, it will be submitted to MEL for proper disposal. Depending on the amount of PCBs detected in the samples (<50ppm), boots may be decontaminated by hosing and removing debris from the boots with water. This may be done on site or upon return. Used sampling gears will be placed inside a double plastic garbage bags for transport back to the office.

2.4 Analytical Methods Requirements

The PCB Target Compounds are: Aroclors 1016, 1221, 1232, 1242, 1248, 1254 and 1260. Quantitation limits are dependent on the matrix and methods used in the analysis. The estimated number of samples and the project quantitation limit requirements are specified in Table 1 of the PSSIP. Monitoring shall be conducted in accordance with EPA and/or TSCA approved analytical procedures. See Table 1 for specific methods, detection limits, etc. applicable to this project.

Methods of Reporting for wipe samples: The laboratory will report wipes sample results as Atotal microgram/wipe@. It is the responsibility of the inspector/s to calculate and report the approximate micrograms of PCB per area sampled (ug/cm^2) in their final inspection report.

2.5 Quality Control Requirements

Quality Control procedures for analyte measurements will be according to the requirements specified in SW-846.

For PCB wipes: For each lot of hospital grade wipes used in collecting PCBs, a lot blank shall be analyzed to certify that the whole lot of wipes purchased are free of contaminants. In addition, for every sampling event, a clean wipe sample taken from the same lot as the samples shall be submitted to the laboratory for method blank analysis. Additional two clean wipes will also be submitted for Laboratory Control and Laboratory Control Standard (LCS/LCSD) analyses (if needed).

Air Samples: One PUF cartridge from each batch of approximately twenty should be analyzed without shipment to the field for the compounds of interest to serve as a process blank. During each sampling episode, at least one PUF cartridge should be shipped to the field and returned without drawing air through the sampler, to serve as a field blank. During the analysis of each batch of samples, at least one solvent process blank (all steps included but no PUF cartridge included) should be carried through the procedure and analyzed. All blank levels should not exceed 10 ng per sample for single component pesticides or 100 ng/sample for PCBs.

Sampling Efficiency and Spike Recovery (Air Sampling): Before using the method for sample analysis, the laboratory must determine its sampling efficiency for the compounds of interest. The procedure for determining sampling efficiency is discussed in Section 15.3 page 10A-17-18 of the Compendium of Methods TO10A.

Laboratory instrumentation will be calibrated in accordance with the analytical procedure. Laboratory instrumentation will be maintained in accordance with the instrument manufacturer=s specifications and the laboratory Standard Operating procedures (SOPs).

2.6 Instrument/Equipment Testing, Inspection and Maintenance Requirements

The laboratory will follow their standard operating procedures for any preventative maintenance required on laboratory instruments or systems used for this project.

2.7 Instrument Calibration and Frequency

Field maintenance and calibration will be performed according to manufacturer=s specifications where appropriate, prior to use of the instruments.

The laboratory will follow the calibration procedures found in the methods listed in Table 1 or in the laboratory=s SOPs.

2.8 Inspection/Acceptance Requirements for Supplies and Consumables

All sample containers used for this project will be new and certified clean by the laboratory. Investigators will make note of the information on the certificate of analysis that accompanies sample containers to ensure that they meet the specifications and guidance for contaminant free sample containers.

Hospital grade wipes used for PCB sampling shall be purchased by the inspectors. Per lot of wipes purchased (a box of 40 4" x 4" wipes) one wipe sample will be used for lot blank and analyzed by MEL for PCB contaminants. The analytical result for this lot blank shall be kept on file by the inspectors.

The solvents used by the inspectors in the field shall be pesticide grade and will be obtained from MEL. The solvents may include acetone, isooctane or ethanol.

2.9 Data Acquisition Requirements (non-Direct Measurements)

Data previously acquired for the facility shall only be used for historical research of the facility and not as a basis for compliance or non-compliance determination at the time of the inspection.

2.10 Data Management

A field log notebook, photos, GPS location data and the Field Sample Data/Chain of Custody Data Sheet (FSDS/COC) will be used to document the sampling and inspection activities. For each sample location, the following will be recorded in the notebook: facility name and address,

sample number, date, time of each sample collection, physical description of each sample collection point, weather conditions, color, sample appearance, sample identifier, and measurements. The FSDS/COC will have the following information: site name, sample number, date, time of each sample collection, sampler=s name or initials and sampling location. If applicable, a suffix l -FD will be appended to the sample identified as the field duplicate. For fixed laboratory analyses, field duplicates will be assigned a separate unique sample identifier and will be submitted >blind= to the analytical laboratory. Analytical duplicate results will be reported with a trailing -AD (analytical duplicate) or D.

Validated laboratory results and interpretation (if necessary) will be appended to the inspection reports. Reports will be maintained as enforcement confidential documents until release is approved by the USEPA Office of Regional Counsel (ORC). Photographs and other supporting data along with the inspection report will be used to determine TSCA compliance.

All data generated during this project will be processed, stored, and distributed according to laboratory=s SOPs.

3.0 Assessment/Oversight

3.1 Assessments and Response Actions

The FPO will be required to review their field log notebooks for accuracy and completeness within 48 hours of each inspection. Sample results provided to the FPO by the laboratory will be appended to the inspection reports. The FPO will compare the sample information in the field log notebooks with the analytical results appended to the inspection report to ensure that no transcriptions errors have occurred.

RPDs between field duplicate and analytical duplicate measurements will be calculated. RPD=s greater than the project requirements will be noted in the associated inspection reports. The FPO will decide if any corrective action will be taken in the event that the RPDs exceed the project=s goals. Validated laboratory data will be provided to the FPO who will be responsible for appending the data to the inspection report. If evidence of non-compliance is observed with the data, depending on the requirements of the office conducting the inspection, the FPO submits the final inspection report and an CO may be assigned to further investigate the facility.

MEL routinely performs performance checks using different program specific blind and double blind check standards. An internal assessment of the data and results are also routinely conducted by the appropriate supervisors and the Laboratory QA Coordinator. The laboratory also participates in the EPA=s round robin studies. No additional audits will be performed on the laboratory for this project.

Corrective action procedures that might be implemented from QA results or detection of unacceptable data will be developed if required and documented in Attachment 2.

3.2 Reports to Management

Only the data validation reports with the properly qualified data shall be provided to the FPO. If, for any reason, the schedules or procedures above cannot be followed, the FPO must complete the Attachment 2-Sample Alteration Form (SAF). The SAF should be reviewed and approved by the QAO. The laboratory should be given a copy of the QAO approved SAF for reference and project file.

4.0 Data Validation and Usability

4.1 Data Review, Validation, and Verification Requirements

The criteria for the validation will follow the specifications of this QA plan and the technical acceptance criteria specified in the analytical methods used.

4.2 Validation and Verification Methods

All data generated shall be validated by the laboratory in accordance with the QA/QC requirements specified in the methods and the Functional Guidelines for Organic Data Review, 11/99 and the technical specifications of the analytical methodology used. The summary of all analytical results will be reported to the FPO and CO. The raw data for this project shall be maintained by the laboratory. Data validation will be performed by the laboratory for all the analyses prior to the release of data. The laboratory will also archive the analytical data into their laboratory data management system.

4.3 Reconciliation with User Requirements

All data and related information obtained during the course of this project will be included in a data report package

Table 1 - Data Quality Objectives Summary

Analytical Group	Number of Samples[1]	# of QA Samples:	MS / MSD Samples	Matrix	EPA Method	Method Detection Limits	Accuracy	Precision (RPD)	Complete-ness	Preserva - tion	Volume, Container	Holding Time (days)
Laboratory Measurements												
PEST/PCBs		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	soil	8082	1 ppm	50-150	50	85	ice	4 oz wide-mouth glass jar	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	water	8082	1 ppm	50-150	50	85		1 Liter	7 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	wipes	8082	total ug/wipe	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	concrete	8082	1 ppm	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	oil	8082	1 ppm	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	PUF	TO10A	1 ppm	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
Field Measurements												
PCB screen		1 dup per batch	1/20 or 1 per batch	transform er oil	9079	5 ppm	50-150	50	85		glass jars	Analyze in the field No HT
pH		1 dup per batch	1/20 or 1 per batch	solid/ liquid	9045C	NA	∀ 0.1 pH Unit	∀ 0.1 pH Unit	100%	None Require d	Field Sample Container	Analyze Immediately

[1] - Sample number includes QA samples and Matrix Spike / Matrix Spike Duplicate (MS/MSD) samples listed in the next two columns. P,G - Plastic, Glass. NOTE: Include one temperature blank per ice chest shipped.

Attachment 1. Sample Alteration Form

Project Name and Number: Rainier Commons PCB (TSCA) Inspection HWD-208B
Material to be Sampled: PCB Bulk Product and PCB Remediation Waste
Measurement Parameter: PCB Aroclors

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):
Site has been pressure washing building and collecting the waste water into a tote, which is qualified as PCB remediation waste. This tote should be mostly water and a sample will be collected from the water (Coliwasa Sampler) to be analyzed for PCB Aroclors. It is expected that only 2 water samples will be collected and the entire tube volume will be collected and sent to the lab. The water portion of the sample will be collected using a coliwasa and emptied into a 1L glass container (for sample homogeneity), and then subsampled into 40ml VOA vials for the laboratory analysis.

In addition, any solid paint chips found on site might be collected. The plan is to collect some and place them in a 4oz jar for the laboratory.

Reason for Change in Field Procedure or Analysis Variation:
Additional sample collection information provided for sampling these specific containers. Analytical methods changed per the lab and project management request to fully extract the matrices sampled. Standard Generic QAPP completeness criteria is 85% due to the often complex sample matrices for TSCA/PCB inspection samples. The goal for this project is 100% due to the critical nature of the sample results.

Variation from Field or Analytical Procedure:
Final selection of the appropriate method will be made after sampling.

Water:
Sampling containers 2x40ml amber glass VOA vials, 5x40ml for samples designated for lab QC
Analytical prep Methods: Preferred: 40ml vial: 3511 Organic Compounds in water by Microextraction 250-500ml: 3510 Separatory Funnel Liquid-Liquid Extraction or 3535 Solid Phase Extraction

Paint Chips:
Sampling Containers: 4oz material – 1 amber glass jar, no extra volume required for lab QC
Analytical prep method: 3580 Waste Dilution, with the same modifications previously used on Rainier Commons paint chips..

Equipment Wipe
An alcohol prep pad wipe will be used, as an effective and easy equipment blank for both the samplers and lab. Wipes are reported as total ug on the wipe.

Reporting Limits: Water decontamination standard is 0.5 ppb (lab MRL 100ppb in clean matrix). Paint decision criteria is 50ppm (lab MRL 1ppm in clean matrix)

Special Equipment, Materials or Personnel Required:
Coliwasa

Initiators Name: Tristen Gardner Date: 4/04/2013

Project Officer: Tristen Gardner Date: 4/04/2013

QA Officer: Jennifer Crawford Date: 4/04/2013

Attachment 2. Corrective Action Form

Project Name and Number:
Sample Dates Involved:
Measurement Parameter:

Acceptable Data Range:

Problem Areas Requiring Corrective Action:

Measures Required to Correct Problem:

Means of Detecting Problems and Verifying Correction:

Initiators Name:_____ Date:

Project Officer:_____ Date:

QA Officer:_____ Date:

Attachment 3: TSCA PCB Site-Specific Inspection Plan (PSSIP)

This PSSIP will be prepared and used in conjunction with the Generic PCB QAPP, Revision 5.0, Rev. 02/09 for collecting samples of opportunity during an announced and unannounced inspections. Please refer to the Generic QAPP for specific details regarding PSSIP. Note: Table -1 DQOs : Do not remove analytes from this generic table. Fill in the number of samples for each applicable analysis/matrix. If the number of samples column is left blank for a particular analysis, the RSCC, QAO and LAB will presume that the analysis is not required for the project. Submit the PSSIP to the RSCC for laboratory coordination/sample numbers/project information and to the QAO for review and concurrence. This form can be E-mailed to crawford.jennifer@epa.gov.

Project Account Code	**Sample Numbers**	**EPA Inspectors/Phone Numbers/Mail Stop**
HWD-208B	13134600-4649	Tristen Gardner/206-553-6240/OCE-084
20132014B10P501E50	For week of March 31, 2013	

Site Name/Facility Type:	Rainier Commons
Address:	3100 Airport Way South, Seattle, WA
Contact Person:	Vered Misrahi
E-mail Address /Phone Number:	vered@arieldevelopment.com 206.948.2821

COOPERATING AGENCIES/PARTIES INVOLVED:

Contact Person	Agency	Phone Number
Michelle Mullin	EPA R10 (OCE-084)	206-553-1616

TENTATIVE PROJECT SCHEDULE

Activity	Estimated Start Date	Estimated Completion Date	Comments
Mobilize to Site	4/4/13	4/4/13	
Sample Collection	4/4/13	4/4/13	
Laboratory Receipt of Samples	4/4/13	4/4/13	Preliminary results requested when analysis is complete
Target Completion Date	6/4/13		

DATA DISTRIBUTION

Name and Mail Stop	Electronic	Hard Copy
Tristen Gardner	Gardner.tristen@epa.gov	OCE-084

FOR QAO REVIEW ONLY

QA Reviewer Concurrence with the PSSIP: Jennifer Crawford *Date : 4/4/2013*

Print Name and Signature

If the QA reviewer has concerns and comments, a signed copy of the comments should be sent to the FPO, CO, RSCC and the laboratory. The comments should be attached to the project file.

Table 1 - Data Quality Objectives Summary

Analytical Group	Number of Samples[1]	# of QA Samples:	MS / MSD Samples	Matrix	EPA Method	Method Detection Limits	Accuracy	Precision (RPD)	Complete-ness	Preserva - tion	Volume, Container	Holding Time (days)
Laboratory Measurements												
PEST/PCBs	2	1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	Soil**	8082	1 ppm	50-150	50	85	ice	4 oz wide-mouth glass jar	14 days extraction 40 days analysis
PEST/PCB	2	1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	water	8082	1 ppm*	50-150	50	85		1 Liter	7 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	wipes	8082	total ug/wipe	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	concrete	8082	1 ppm	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	oil	8082	1 ppm	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
PEST/PCB		1 dup/ 1 rinsate per day of sample collection	1/20 or 1 per batch	PUF	TO10A	1 ppm	50-150	50	85		wide mouth glass jars	14 days extraction 40 days analysis
Field Measurements												
PCB screen		1 dup per batch	1/20 or 1 per batch	transform er oil	9079	5 ppm	50-150	50	85		glass jars	Analyze in the field No HT
pH		1 dup per batch	1/20 or 1 per batch	solid/ liquid	9045C	NA	∀ 0.1 pH Unit	∀ 0.1 pH Unit	100%	None Required	Field Sample Container	Analyze Immediately

[1] - Sample number includes QA samples and Matrix Spike / Matrix Spike Duplicate (MS/MSD) samples listed in the next two columns. P,G - Plastic, Glass. NOTE: Include one temperature blank per ice chest shipped.

*1ppm Approved Generic TSCA QAPP SSIP RL. For this project, the RL is anticipated to be 10ppb in a clean water matrix. If complex matrix interferences are present could result in elevated ppb RL.

** See SAF Appendix for updated matrix, antipated analytical preparation methods, and containers which are proposed for use with this project. Selection of final methods will be made after sampling is complete.